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ABSTRACT

The series of experiments reported here investigated dimensions of children's sex stereotypes. The first study revealed that children were aware of sex stereotypes as early as 2 1/2 years of age. Furthermore, the tendency to categorize according to sex increased through their eighth year. The second study investigated whether sex stereotypes influenced children's evaluations of competent performance. It was found that, apparently, children base their evaluations of likely competence on the sex of the performer of sex-typed activities. The third study allowed children to express the strength of their beliefs in sex-typed evaluations of competence. Children's ratings of the competence of males' or females' performance on sex-typed activities revealed a clear bias toward sex-stereotyped performance. However, the children did not assume that the counterstereotypic performer would be totally incompetent, and ratings were closer to judgments of equal competence than to stereotyped extremes. Also collected were data on memory deficits for counterstereotypic portrayals; these revealed that children had considerable difficulty processing this type of information. Results of two additional studies indicated that discriminations based on sex stabilize by the time children reach the second grade and that children do not discriminate on the basis of sex when they make evaluations of individual performers. These results, additional findings, and implications of the findings are discussed. (RH)

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Sex Stereotypes of Children: What Functions Do They Serve?

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The question that interested us when we began our research program on sex stereotyping in children was the degree to which children used these sex-typed expectations to make evaluative judgments. If children develop their sex stereotypes simply as a way to facilitate dealing with a social world that seems highly complex, these stereotypes might not represent an issue of great concern. To the extent that these stereotypes represent somewhat accurate, although overly simplified views of the social world, they may be no more than a beginner's assessment of the way things seem to be. When a child indicates that nurses must be female, this may be no more than a reflection of the fact that the child has experienced almost no nonfemale nurses. In other words, an indication of the world as it has presented itself to the child. The child's desire to be correct, and to create a world sufficiently simple that it can be dealt with, may produce a seemingly rigid, but essentially harmless adherence to these categorizations. As the child is exposed to a more varied world, with instances that contradict the simple structure that initially emerges, the tendency to respond according to these stereotypes should diminish.

On the other hand, if the child treats the sex-typed categorization scheme as the definition of the socially correct pattern, then variations from the expected will be perceived not just as deviations to be considered in terms of

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the possible implications for the structure that has developed, but as evaluatively inappropriate and probably inferior instances. This application of the stereotype would seem to be problematic, since it will lead to rejection of counterstereotypic instances and a failure to revise the stereotype based on experience. These effects are not limited to the child's rejection of opposite sex activities for the self, but extend to the devaluation of those others who may engage in cross sex-typed behaviors and to devaluation of the performances of these sex role violators. Sex role consistency becomes not just expected, it becomes the only acceptable pattern.

Our initial project involved presenting children with a series of sex typed activities and asking them to indicate whether a male or a female would most likely perform the activity. These data would provide us with a clear basis for assuming that the children did, in fact, hold sex stereotypic views of the activities. We also wanted to assess developmental differences, to identify the age at which the stereotypes became clear and, possibly, the age at which they no longer operated.

The first study in the series was carried out as a senior project by Linda Gettys. The children ranged in age from 2 1/2 to 8 years, with approximately equal numbers of males and females in each of three age groupings. The children were seated at a table and presented with two adult dolls, Barbie and Ken. The dolls were dressed as similarly as possible, and the positioning of the dolls was varied from child to child. The child was told that the experimenter would call out some "jobs that people do", and the child's task was to indicate who would do the job by pointing to one of the two dolls. The roles selected were occupations which had been found in research with adults to

be identified as sex-typed roles. There were 5 female and 5 male roles.

The responses were scored by assigning 0 when the male doll was selected and a 1 when the female doll was indicated. The data were analyzed with sex of child and age of child (3 levels) as between groups factors and sex-type of role as a within groups factor. The sex-type of role main effect and its interaction with age were significant. The children clearly distinguished between the female and the male roles, assigning the female to the female roles and the male to the male roles, and demonstrating a recognition of the sex stereotypes consistent with adults' views. The interaction with age indicated that the distinction between roles increased with age, although the difference between roles was significant at each age level. The results of this initial investigation suggested that children were aware of these sex stereotypes at a very early age, as early as 2 1/2 years of age, and that the tendency to categorize according to sex increased through age 8 years.

Having determined that the children recognized the sex-typed distinctions among roles, our next project was designed to assess for the presence of evaluative differences that corresponded with the stereotypic expectations. This study was performed by Jeanne Haight as her senior project. The procedures were very similar to those in the first study, but only older children were used as participants because of the types of judgments to be made. The children ranged in age from 5 1/2 to 9 years and were divided into three age groupings. The same two adult dolls were used as stimuli, but 16 roles were used rather than just 10, again the roles were evenly divided between female and male sex-typed roles. The child was told that the two "people" represented by the dolls both performed the job described. The

child's task was to indicate which person did the job best. If the stereotyping by children is nonevaluative, informing the child that both a male and a female engage in the activity should make the performers equivalent and lead to a random pattern of choices of the female or male doll. Alternatively, if perceived category membership implies competence, and conversely, nonmembership equals incompetence, then the same pattern of results should emerge whether the question asked involved membership or competence. Results were scored by assigning 0 when the male doll was selected and a 1 when the female was chosen. If the child indicated "both", this was recorded, but then a choice was requested. Less than 1% of all responses were "both".

As in the initial study, the sex-type of role main effect and sex-type of role by age of child interaction were significant. In addition, the sex of child main effect was significant. Again the children at each of the age levels clearly distinguished between the roles in a sex stereotypic manner, with the degree of separation increasing with age. The female doll was selected as the superior performer when the role was female sex-typed and the male doll was selected for the male sex-typed activities. The sex of child main effect revealed a tendency by the children to select the same sex doll. Apparently, children base their evaluations of likely competence on the category membership of the performer. If the task is a stereotypically female task, then the female must be more competent, while males are superior at stereotypically male tasks. Note the single exception to this pattern occurred for the activity "banker", where children assumed the female would be superior to the male. In retrospect, it seems possible that the children defined banker as the bank teller, the person they most likely see in their visits to banks, and this activity is sex-typed as female. This deviation actually represents

further support for the assumption that children are simply attempting to categorize according to their experiences. Unfortunately, by using category membership as an evaluative guideline, they are going beyond the necessary and appropriate application of their derived schema.

In the third study of the series, we wanted to design a procedure which would allow children to express the strength of their beliefs in sex-typed evaluations of competence. In the first two studies the child had been asked to make a dichotomous choice between the male or the female doll. With that procedure, it was not possible to assess whether the child believed the stereotypically consistent performer was just slightly superior, or vastly superior. Indeed, the safe response in that situation might have been to choose the stereotype consistent performer even when no, or only slight, differences were perceived to exist. The stimuli for this study were the same as those in the two previous projects, but the dependent measure required that the child allocate a pile of 10 plastic chips between the two dolls to indicate a relative evaluation of the person's likely competence at the activity described. The children were trained in the use of the chips by presenting pairs of drawings of familiar objects which had been created to be of similar quality or of very different quality. The experimenter demonstrated the use of the chips for two pairs of drawings, and then the child indicated an evaluation for a third pair. It was made clear that any division of the chips was possible, from a 0--10 split to a 5--5 split. When the experimenter was certain that the child understood the requirements, the dolls were presented and the roles were described. As in the previous study, the experimenter made a point of telling the child that both people did perform the activity presented. The children in this study ranged in age from 5 1/2 to 9 years, and

there were 12 of each sex at each of three age groupings. Eight activities were used, four female and four male sex-typed roles.

The responses were scored by counting the number of chips allocated to the female doll and averaging the responses for the four female and four male roles. The analysis yielded the exact same pattern as that obtained in the previous study. The sex-type of role main effect and the interaction with age were significant, as was the sex of child main effect. As before, the children evidenced strong stereotypes in judging likely competence at the activities, and this tendency, while significant at each age level, did increase in strength with age. The sex of child effect again revealed a bias toward the same sex performer. Worth noting, however, is the degree of differentiation that takes place when the children can make relative evaluations. Chips were allocated with a clear bias toward the stereotype consistent performer, but the differences were not extreme. Overall, the ratings were much closer to the midpoint evaluation of equal competence than the endpoints representing an absolute dependence on the stereotype. The average number of chips assigned for the male occupations was just under 4 (3.92), and the average allocated for the female activities was less than 6 (5.65). For the female activities, 28% of the ratings were even distributions of the chips, while 24% of the ratings of male activities were even. Obviously, children do not assume that the counterstereotypic performer will be totally incompetent, although they do see moderate, and consistent, differences.

We also collected data on a new dependent measure in this study, based in part on findings like those reported by Signorella and Liben, and Martin and Halverson indicating memory deficits for counterstereotypic portrayals. After

the child had responded to the last activity, we asked for recall of the activity that had been presented. The experimenter pointed to the doll on the right, and asked the child what activity it was that this person performed. Since doll position and activity order had been controlled for, we had approximately equal numbers of male and female instances, and stereotype consistent and inconsistent pairings of doll and activity. A chi-square comparison assessing the frequency of correct recall as a function of the stereotype consistency revealed that the children had a much lower probability of correct recall when the doll pointed to had last been presented in a counterstereotypic activity. There were no differences in the number of chips allocated as a function of the accuracy of recall, and recall did not depend on age or sex of the child. Even with the very short delays involved in this procedure, children had considerable difficulty processing counterstereotypic information. Since responses on the chip allocation task were unaffected, it would appear that the children were making a judgment concerning the sex-role appropriateness of the information presented, and then basing their evaluation on this decision. Knowing that the match between the sex of the performer and the activity was inconsistent with the sex stereotype enabled the child to make an evaluation, even when the specific information about the activity had been lost. This would seem to support a schema-based model of sex stereotyping.

Two additional studies in this research program were carried out by Linda Gettys for her masters thesis. In the first study, she examined choices made by second, fourth and sixth grade children when asked to imagine that they needed a person to perform an activity for them and that they could select either a female or a male. The activities were presented using single sentence descriptions, and choices were made by pointing to one of two dolls. This task

should be quite similar to assessing the perceived competence of the individual at the activity. The primary difference from the earlier study is the inclusion of older children, extending the age range examined to 12 year olds. Twelve occupational roles were presented, and for each role the experimenter made it clear that both people did engage in the activity. Results from this study replicated the sex of role main effect that had been obtained in all the previous studies, but failed to produce the sex of role by age of child interaction. Children at these ages still discriminated in their selections based on sex, but the tendency seems to have stabilized by the second grade, showing no further increases or decreases.

The final study in the series again used children in grades 2, 4 and 6. This time they were presented with one stimulus person at a time and asked to make judgments on a four point rating scale. Each child received 12 different activities, half presented with a stereotype consis ent performer and half presented with a counterstereotypic performer. Along with brief descriptions of the activity, each child received a picture depicting a person in the appropriate setting for the activity. The descriptions reinforced the sex of performer manipulation by including male or female pronouns. The question of main interest asked the child to indicate how good the person depicted probably was at the job. An analysis of the ratings revealed no reliable effects. The children did not discriminate based on sex when they made individual evaluations of performers. All of the performers were judged as highly skilled at the activities. The implication is that children believe both females and males can engage in the activities and perform competently, but when a choice is required, or a comparative evaluation is requested, they will resort to their stereotyped expectancies to arrive at a judgment. A second possibility

is that the children are trying to give "correct" answers when asked to decide between a female or a male, but feel no such need when asked to evaluate a particular performer. This remains an alternative explanation worth testing.

Taking the results of this series of investigations together, a number of conclusions seem justified. First, it is quite clear that, in general, children hold sex-typed views similar to those that emerge in research with adults. They recognize sex as a potential categorization variable, and they apply it to many activities. The only exception to this pattern of sex-typed responding occurred when the children made independent evaluations of male and female performers rather than relative ratings. A number of explanations for this deviation seem plausible, if it is found to be a reliable variation. Children, in fact, may not perceive sex differences on these tasks when the comparison based upon sex is not made salient. If the sex or gender schema is not activated, there may be less of a tendency to devalue counterstereotypic performances. Alternatively, children may simply have a positivity bias when rating adult behaviors, rating all adult behavior as good. A second conclusion concerns developmental changes. The adherence to this sex-based categorization strategy, at least for the activities we examined, seemed to increase up to about 8 to 9 years of age. Although there was evidence for sex stereotyping at every age level examined, from age 8 to 12 no additional increases were found. Whether there are changes after age 12 remains an issue for future consideration. There is certainly abundant evidence of sex-typing by adults on similar tasks, although the processes involved may turn out to be quite be dissimilar.

A third conclusion involves the children's tendencies to equate stereotype

consistency with perceived competence. This application of the sex stereotype is of greatest concern. There is an important distinction between observing that most doctors are male or that most nurses are female and believing that female doctors or male nurses are necessarily less competent. Such evaluative prejudices could greatly affect children's career aspirations and perceptions of potential role models, especially since these biases were held regardless of the sex of the child. Female children were just as likely as male children to see the female doctor as less competent. The pervasiveness and generality of the sex stereotype's influence leave little room for optimism concerning easy elimination of sex-typed behaviors. How can traditional sex-typed roles be avoided if counterstereotypic role models are either rejected as less competent or processed inefficiently, leading to biased recall or no recall? The recall data collected in the third study would seem to indicate that the children made a very general judgment concerning category appropriateness, and based upon that decision arrived at an evaluation. Their ratings reflected the sex stereotyped biases even when they could not recall the specifics concerning the activity. Thus, for the child, the sex stereotypes not only describe the social world, they define the appropriate social world, and information about category appropriateness is sufficient to make many judgments.

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Table 1. Percentage of Children Selecting the Stereotype-consistent Doll (from Gettys, L.D. & Cann, A.)

Activity	2-3 year olds	4-5 year olds	6-7 year olds
Male Activities			
Doctor	67	79	84
Police	67	90	92
Mayor	61	79	91
Basketball player	83	90	99
Construction worker	78	98	97
Female Activities			
Secretary	67	66	96
Teacher	78	90	94
Dancer	61	90	91
Model	67	72	66
Librarian	44	84	97

Table 2. Percentage of Children Selecting the Stereotype-consistent Doll as More Competent (from Cann, A. & Haight, J. M.)

Activity	5½-6½ year olds	7-7½ year olds	8-9 year olds
Male Activities			
Doctor	71	89	89
Police Officer	86	91	100
Truck Driver	82	96	100
Mechanic	68	89	98
Lawyer	64	84	83
Boss	80	86	98
Banker	42	34	30
Principal	80	91	89
Female Activities			
Secretary	70	84	89
Teacher	86	98	94
Dancer	76	93	89
Model	80	77	83
Librarian	74	70	89
Nurse	89	93	96
Cashier	61	62	64
Cook	65	75	68

Table 3. Mean Number of Chips Allocated to the Stereotype-consistent Doll (from Cann, A. & Garnett, A. K.)

Activity	Age of Child		
	67-78 mths	79-95 mths	96-114 mths
Male Activities			
Police Officer	5.37	5.79	6.58
Truck Driver	6.67	6.83	6.46
Doctor	6.08	5.58	7.00
Principal	5.37	5.62	5.62
Combined	5.87	5.96	6.42
Female Activities			
Secretary	5.25	5.75	6.83
Nurse	7.08	7.54	7.63
Dancer	5.58	5.04	6.33
Teacher	5.75	5.79	6.58
Combined	5.92	6.03	6.84

Higher numbers indicate perceptions of greater competence

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